

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
21 July 2005 (21.07.2005)

PCT

(10) International Publication Number  
**WO 2005/066266 A1**

(51) International Patent Classification<sup>7</sup>: **C08L 23/12**,  
23/26, 23/16, 51/06, 33/06, C08J 7/06, 5/18, C09D  
123/12, C23C 16/12

(21) International Application Number:  
**PCT/CA2005/000019**

(22) International Filing Date: 7 January 2005 (07.01.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/535,384 9 January 2004 (09.01.2004) US

(71) Applicant (for all designated States except US): **E.I. DU  
PONT DE NEMOURS AND COMPANY [US/US]; 1007  
Market Street, Wilmington, DE 19898 (US)**

(72) Inventor; and

(75) Inventor/Applicant (for US only): **LEBOEUF, Christian  
[CA/CA]; 19 1/2 Montgomery Blvd., Kingston, Ontario  
K7M 3N7 (CA)**

(74) Agent: **CLARIZIO, Dino, P.; Bennett Jones LLP, Suite  
3400, 1 First Canadian Place, P.O. Box 130, Toronto, On-  
tario M5X 1A4 (CA)**

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,  
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,  
GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments.

For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.



**WO 2005/066266 A1**

(54) Title: POLYPROPYLENE MODIFICATION FOR IMPROVED ADHESION OF POLYPROPYLENE-BASED MULTI-LAYER PACKAGING FILM STRUCTURE TO VACUUM DEPOSITED ALUMINUM

(57) Abstract: There is provided a metallizable alkene or olefin polymer composition. The composition results from the blending of a modifier with an alkene or olefin polymer composition. The modifier is selected from the group consisting of : a maleic anhydride grafted ethylene copolymer, an ethylene copolymer containing acid monomers and/or ester monomers, an acid-grafted propylene copolymer, and a maleic anhydride grafted blend of a propylene copolymer with an ethylene copolymer. The resultant polymeric composition adheres surprisingly well to metal films and particularly well to aluminum film. The resultant composition also has unexpectedly favourable rheology properties making the composition efficient to use in co-extrusion processes. Also provided is a method of preparing the polymer compositions.